

CLAIMS

1. A sheet tobacco manufacturing process comprising:
a preparing step of preparing a carrier sheet of
nonwoven plant fibers;

5 a forming step of spreading a tobacco powder material
on said carrier sheet to form a tobacco powder layer
covering one side of said carrier sheet;

an adding step of adding a binder to said tobacco
powder layer during or after said forming step; and

10 a binding step of binding the tobacco powder material
in said tobacco powder layer as well as said tobacco powder
layer and said carrier sheet to each other by means of the
binder.

2. The process according to claim 1, wherein said
15 carrier sheet is formed in said preparing step by a dry
nonwoven fabric production process, and said forming step
is performed continuously following the formation of said
carrier sheet to form said tobacco powder layer on the one
side of said carrier sheet.

20 3. The process according to claim 1 or 2, further
comprising an intermediate step performed between said
forming step and said binding step, to form a cover sheet
of nonwoven plant fibers covering the other side of said
tobacco powder layer.

25 4. The process according to claim 3, wherein said
intermediate step is performed following the formation of
said tobacco powder layer, to form said cover sheet by a
dry nonwoven fabric production process.

30 5. The process according to claim 1 or 4, wherein in
said binding step, the plant fibers of at least one of said
carrier sheet and said cover sheet are bound together by
means of the binder.

6. The process according to claim 1, wherein in said adding step, a binder of powder form is added during the formation of said tobacco powder layer.

7. The process according to claim 6, wherein the
5 binder contains cornstarch.

8. The process according to claim 6 or 7, further comprising an infiltrating step performed prior to said binding step, to cause a solvent for the binder to infiltrate into said tobacco powder layer admixed with the
10 binder as well as into said carrier sheet.

9. The process according to claim 8, wherein in said binding step, said tobacco powder layer and said carrier sheet are pressed with heat applied thereto.

10. The process according to claim 1, further
15 comprising a step of forming a tobacco particle layer between said carrier sheet and said tobacco powder layer or between said tobacco powder layer and said cover sheet, said tobacco particle layer containing particles of tobacco stems and laminas.

20 11. A sheet tobacco manufacturing system comprising:
an endless net conveyor traveling in one direction;
an upstream-side forming device arranged at an upstream portion of said net conveyor, for forming a carrier sheet of nonwoven plant fibers on said net
25 conveyor;

a powder spreading device arranged on a downstream side of said upstream-side forming device, for spreading a tobacco powder material on the carrier sheet to form a tobacco powder layer covering the carrier sheet; and
30 a pressing device arranged on a downstream side of said powder spreading device, for heating and pressing the carrier sheet and the tobacco powder layer.

12. The system according to claim 11, further comprising a spraying device arranged on an upstream side of said upstream-side forming device, for wetting in advance said net conveyor with a predetermined liquid.

5 13. The system according to claim 11 or 12, further comprising a downstream-side forming device arranged between said powder spreading device and said pressing machine, for forming a cover sheet of nonwoven plant fibers covering the tobacco powder layer.

10 14. The system according to claim 13, wherein said downstream-side forming device includes a fiber spreading unit arranged above said net conveyor for spreading plant fibers toward said net conveyor, a mesh conveyor arranged between the fiber spreading unit and said net conveyor, the
15 mesh conveyor sucking thereon the plant fibers spread from the fiber spreading unit to form a cover sheet and transporting the cover sheet toward said net conveyor, and peeling means for peeling the cover sheet from the mesh conveyor to allow the cover sheet on the mesh conveyor to
20 be transferred onto the tobacco powder layer.